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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/346,277	07/01/1999	SHIN AOKI	RCOH-1013	2216

21302 7590 09/15/2003

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EXAMINER

WISDAHL, ERIC D

ART UNIT PAPER NUMBER

2615

DATE MAILED: 09/15/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/346,277

Applicant(s)

AOKI, SHIN

Examiner

Eric D Wisdahl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Cok (U.S. Patent 4, 630, 307).

Regarding Claim 1, Cok discloses the method of correcting data representing abrupt intensity gradient within a predetermined set of sampled areas, comprising the steps of:

- Determining a direction of the abrupt intensity gradient (Figure 11);
- Determining a set of correction coefficients based upon the direction (Figure 12 – 14 and Column 2 lines 34 – 44); and
- Correcting the data using the coefficients (Figure 12 – 14 and Column 2 lines 34 – 44).

Regarding Claim 2, Cok discloses:

- The abrupt intensity gradient as stripes (Column 4 line 60 – Column 5 line 3).

Regarding Claim 3, Cok discloses:

- The direction of the stripes as horizontal (Column 4 line 60 – Column 5 line 3).

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Regarding Claim 4, Cok discloses:

- The direction of the stripes as vertical (Column 4 line 60 – Column 5 line 3).

Regarding Claim 5, Cok discloses:

- The sampled areas are covered by a planar array of color area image sensors (Figure 1).

Regarding Claim 6, Cok discloses:

- The color area image sensors generate primary colors (Figure 1).

Regarding Claim 7, Cok discloses:

- For each primary color, the set of correction coefficients is selected based on the direction of the intensity gradient (Column 4 lines 37 – 43).

Regarding Claim 8, Cok discloses:

- The direction includes a vertical type and a horizontal type (Column 4 line 60 – Column 5 line 3).

Regarding Claim 9, Cok discloses:

- The set of correction coefficients is selected additionally based upon a pattern of the planar array of the color area image sensors (Column 4 lines 37 – 43).

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Regarding Claim 10, Cok discloses:

- The direction includes a vertical type, a horizontal type and a all-other type (Column 4 line 60 – Column 5 line 3).

Regarding Claim 11, Cok discloses:

- The direction is continuous (Column 4 line 60 – Column 5 line 3).

Regarding Claim 12, see examiners notes Claim 1.

Regarding Claim 13, see examiners notes Claim 2 – 4.

Regarding Claim 14, see examiners notes Claim 5.

Regarding Claim 15, see examiners notes Claim 7.

Regarding Claim 16, see examiners notes Claim 8.

Regarding Claim 17, see examiners notes Claim 9.

Regarding Claim 18, see examiners notes Claim 10.

Regarding Claim 19, see examiners notes Claim 11.

Regarding Claim 20, see examiners notes Claim 1.

Claims 1 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams, Jr. et al. (U.S. Patent 5, 652, 621).

Regarding Claim 1, Adams, Jr. discloses the method of correcting data representing abrupt intensity gradient within a predetermined set of sampled areas, comprising the steps of:

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- Determining a direction of the abrupt intensity gradient (Column 5 line 65 – Column 7 line 17);
- Determining a set of correction coefficients based upon the direction (Column 5 line 65 – Column 7 line 17); and
- Correcting the data using the coefficients (Column 5 line 65 – Column 7 line 17).

Regarding Claim 2, Adams, Jr. discloses:

- The abrupt intensity gradient as stripes (Column 5 line 65 – Column 6 line 39).

Regarding Claim 3, Adams, Jr. discloses:

- The direction of the stripes as horizontal (Column 5 line 65 – Column 6 line 39).

Regarding Claim 4, Adams, Jr. discloses:

- The direction of the stripes as vertical (Column 5 line 65 – Column 6 line 39).

Regarding Claim 5, Adams, Jr. discloses:

- The sampled areas are covered by a planar array of color area image sensors (Column 1 lines 45 – 50).

Regarding Claim 6, Adams, Jr. discloses:

- The color area image sensors generate primary colors (Column 1 lines 45 – 50).

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Regarding Claim 7, Adams, Jr. discloses:

- For each primary color, the set of correction coefficients is selected based on the direction of the intensity gradient (Column 5 line 65 – Column 7 line 17, Column 8 line 4 – 56, Further, it is seen that since the chroma value interpolation is based upon the interpolated green value, which are in turn based upon the direction of the abrupt gradient, that the chroma value interpolation is itself based upon the direction of the abrupt gradient).

Regarding Claim 8, Adams, Jr. discloses:

- The direction includes a vertical type and a horizontal type (Column 6 lines 30 – 39).

Regarding Claim 9, Adams, Jr. discloses:

- The set of correction coefficients is selected additionally based upon a pattern of the planar array of the color area image sensors (Column 8 lines 4 – 56).

Regarding Claim 10, Adams, Jr. discloses:

- The direction includes a vertical type, a horizontal type and a all-other type (Column 6 lines 47 – 65).

Regarding Claim 11, Adams, Jr. discloses:

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- The direction is continuous (Column line 65 – Column 7 line 17, Column 8 line 4 – 56).

Regarding Claim 12, see examiners notes Claim 1.

Regarding Claim 13, see examiners notes Claim 2 – 4.

Regarding Claim 14, see examiners notes Claim 5.

Regarding Claim 15, see examiners notes Claim 7.

Regarding Claim 16, see examiners notes Claim 8.

Regarding Claim 17, see examiners notes Claim 9.

Regarding Claim 18, see examiners notes Claim 10.

Regarding Claim 19, see examiners notes Claim 11.

Regarding Claim 20, see examiners notes Claim 1.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Laroche et al. U.S. Patent 5, 373, 322.

Hibbard U.S. Patent 5, 382, 976.

Hamilton, Jr. et al. U.S. Patent 5, 629, 734.

Hieda U.S. Patent 5, 307, 159.

Lu et al. U.S. Patent 5, 805, 217.

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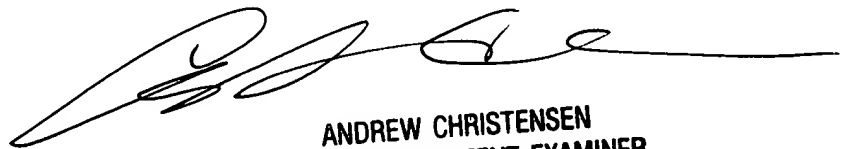
Chen U.S. Patent 6, 570, 616.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D Wisdahl whose telephone number is (703) 305-4915. The examiner can normally be reached on 9:00 - 6:00 Mon-Thur every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center 2600 customer service office which can be reached at telephone number (703) 306-0377.

Edw



ANDREW CHRISTENSEN
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TECHNOLOGY CENTER 2600